

Center ops gets new deputy

Joseph Fries has been named the new deputy director of Center Operations.

Fries began his career at JSC in 1963 and has held progressively responsible technical and managerial positions at JSC. Following a 15-year career in the Propulsion and Power Division, Fries moved to WSTF in 1978. In 1985 he was selected for a branch chief position, and in 1986 became chief of the Propulsion Test Office.

EVA team hangs plaque

Oscar Koehler and his EVA team hung the STS-82 plaque in Mission Control after developing real-time solutions to insulation tears discovered during the Hubble Space Telescope servicing mission.

"The EVA team was responsible for the development of procedures, crew training and real-time execu-

tion support for all the complex EVA tasks," said Lead Flight Director Jeff Bantle. "They performed some outstanding work developing Hubble's insulation repair procedures."

The EVA team included Paul Boehm, Stacie Greene, Michael Hess, Kieth Johnson, Kerri Knotts, Tricia Mack, Randall McDaniel, Daryl Schuck, Linda Thomas, Wayne Wedlake, Dana Weigel, Salvatore Ferrara, Daniel Goodwin, J. Dennis Hayes, Lauri Hembree, Albert Lee, Jose Lozano, Alberto Magh, Angela Prince, Anita Ramos, Ronnie Rogers, Jeffery Stone, Jerry Ross and Jeff Hoffman.

Kerrick chosen for ISU

Ginger Kerrick of Mission Operations' Space Flight Training Division will be JSC's representative in the International Space University summer program.



Fries



Koehler



Kerrick



Krishen



Attaway



Otten

Columbia ready for pad move

The Space Shuttle *Columbia* is in the Vehicle Assembly Bldg., scheduled to roll out to the launch pad Monday for the home stretch of Microgravity Science Laboratory-1 pre-launch work.

The move from Kennedy Space Center's Orbiter Processing Facility was delayed Tuesday for replacement of six tiny liners that accept screws that in turn connect the orbiter's 17-inch quick-disconnect umbilical to the external tank. The threads on the liners were stripped and the liners had to be replaced. Some of the liners were in hard-to-reach places, and *Columbia* was repowered so that the umbilical door could be repositioned to allow access.



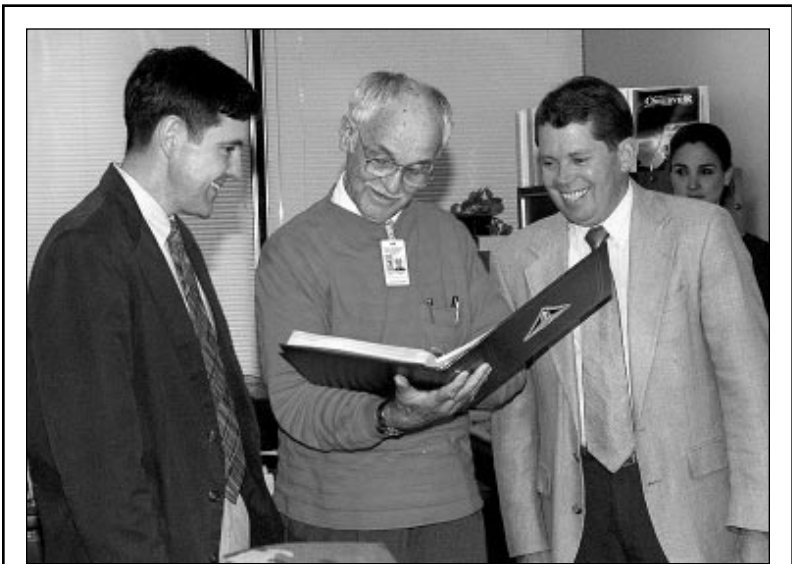
With the liners replaced overnight Tuesday, technicians moved on to the work of putting *Columbia* into position for the attachment of its external tank and solid rocket boosters late this week. Roll out to Launch Pad 39A is on track for Monday. After rollout, technicians plan to hot fire one of the shuttle's three auxiliary power units.

Commander Jim Halsell, Pilot Susan Still, Payload Commander Janice Voss, Mission Specialists Mike Gernhardt, Don Thomas, and Payload Specialists Roger Crouch and Greg Linteris are set to fly to KSC on Tuesday, arriving late in the afternoon to participate in the final dress rehearsal of the STS-83 launch. The crew will be briefed on safety procedures and go through a simulated countdown.

Columbia and its crew are scheduled for launch at 1:01 p.m. CST April 3 on a 16-day mission that will foreshadow research on the International Space Station. The payload is a complement of experiments that focus on materials processing technology and other science and research requiring the low-gravity environment of Earth orbit.

Meanwhile, *Atlantis* is being readied for STS-84, the sixth shuttle-Mir docking mission, in May. *Atlantis* is in OPF Bay 3 this week, having its forward reaction control system and main engines installed. The STS-84 solid rocket boosters and external tank will be assembled late this month, with roll over of *Atlantis* for mating in the VAB set for April 9.

Discovery is in OPF Bay 2, being readied for STS-85, the second Cryogenic Infrared Spectrometers and Telescopes for the Atmosphere-Shuttle Pallet Satellite mission to study the Earth's atmosphere. Technicians are removing residual propellants from its hypergolic tanks and preparing to remove the main engines.



JSC Photo S97-02994 by Karen Schmidt

THE LONG GOODBYE—From left, Bob Cabana, chief of the Astronaut Office, presents a collection of astronaut farewells to JSC Public Affairs Photographer Andrew "Pat" Patnesky with the help of Flight Crew Operations Director Dave Leestma. Patnesky came to JSC when only cows roamed the current facility and has covered astronaut training from the Mercury Seven to the present day. He recently retired from JSC after 58 years of government service, 36 spent at JSC.

Gilruth center goes on-line; fitness challenge begins

Just in time for the 1997 NASA Fitness Challenge, a new interactive Web page has been developed to share general information about recreational opportunities available at the Gilruth Center.

With just the click of a mouse, employees can now find information on athletic activities, health and nutrition programs, leisure classes and more.

"Since JSC employees are using the Internet more often, this is an exciting and effective medium for getting up-to-date recreational information directly to current and potential Gilruth Center users," said Bob Musgrove, the Employee Activities Association's vice president of athletics.

Employees may access the Gilruth Center Home Page from the JSC Internal Home Page, or at the address: <http://www4.jsc.nasa.gov/ah/ExcEAA/Gilruth/Gilruth.htm>

In addition, the Gilruth again will sponsor the NASA Fitness Challenge. The event, held yearly and began March 1 and ends Aug. 31, promotes physical activity and friendly competition among all NASA centers.

JSC participants who meet the standards for the challenge win a free multi-colored T-shirt. Standards for the challenge were established by the President's Council on Physical Fitness and Sports. A copy of rules and a personal fitness log may be obtained from the fitness staff or by calling x30301.

Employees must keep a record of their activities in the log and when at least one requirement is met, turn in the log to the fitness staff at Mail Code AW9 to receive at least one Presidential Sports Award.

All NASA civil servants, contractors, dependents and retirees are eligible.

By education, I mean any formal or continuing education and skills enhancement. We are very fortunate here at JSC to have the Human Resources and Development Branch which provides access to multidisciplinary courses to assure enhancement in a variety of skills."

Employees also need arenas in which to practice these skills. With the help of their management, all employees should look for opportunities to use new skills and improve existing ones, Hendricks said. These opportunities may include rotational assignments, special projects or working on teams.

The Mir 22 cosmonauts said farewell to their colleagues Sunday and the three remaining crew members began analyzing back pain and sleep patterns.

Mir 22 Commander Valeri Korzun, Flight Engineer Alexander Kaleri and Cosmonaut Researcher Reinhold Ewald returned to Earth in the wee hours Sunday, leaving behind Mir 23 Commander Vasily Tsibliev and Flight Engineer Alexander Lazutkin and Flight Engineer Jerry Linenger. The trio will remain on Mir until *Atlantis* returns to the Russian outpost in May to deliver supplies along with Linenger's replacement, Mike Foale.

Meanwhile, science operations continued in the fundamental biology and microgravity science disciplines. The Mir 23 crew members completed their daily Magnetic Resonance Imaging back pain questionnaires, performing this activity for the first 10 days after reaching Mir. From now on, the Mir crew members are scheduled to complete the questionnaire only on days they experience back pain.

Linenger continued the human life sciences sleep investigation that examines immune system alterations in relation to sleep in microgravity. It should provide long-term data on the physiology and behavior of human sleep under conditions of prolonged microgravity. The experiment will be conducted at scheduled intervals throughout Linenger's mission by all crew members on board.

A sample of the Liquid Metal Diffusion experiment was initiated last week to continue the evaluation of material dynamics in space. The experiment takes advantage of the Microgravity Isolation Mount to reduce or eliminate vibrations that could disturb the sample processing. In conjunction with experiment operations, the Space Acceleration Measurement System also was activated.

The Enhanced Dynamics Load Sensors hardware set-up and calibration session was performed to both passively and actively measure the forces exerted by the crew members on Mir during their daily activities.



Rookies to ride on STS-89

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Specialist David Wolf to Mir to begin a planned four-month stay. Wolf will replace Astronaut Wendy Lawrence, scheduled to arrive at Mir in September 1997 during the STS-86 mission aboard *Atlantis*. Lawrence will return to Earth on board *Discovery* as a member of the STS-89 crew.

STS-89 will mark Wilcutt's third space flight and his second visit to Mir. He was the pilot on STS-79, the fourth shuttle/Mir flight which

saw the first exchange of U.S. crew members on the Mir, leaving John Blaha and returning Shannon Lucid to Earth. Wilcutt's first flight was STS-68 in 1994.

Dunbar is a veteran astronaut with four space flights to her credit. She flew on STS-61A in 1985, STS-32 in 1990, STS-50 in 1992, and the first shuttle/Mir docking mission, STS-71 in 1995.

Edwards, Anderson and Reilly will be making their first trip to space during STS-89.

Statistics show improvements for women of JSC; more workers in responsible positions

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The next category reviewed in 1980 was that of technicians and clerical staff. In 1980, three out of five employees in this category were women. The category included 303 technicians—14 were women; and 542 clerical workers—500 were women. Now, four out of five employees are women. There are 130 technicians, of which 14 are women, and 318 clerical employees, of which 313 are women.

"As these statistics indicate, there have been many improvements for women during the last 17 years at JSC," Hendrick said. "As for any employee, the keys to advancement

are education and practice. By education, I mean any formal or continuing education and skills enhancement. We are very fortunate here at JSC to have the Human Resources and Development Branch which provides access to multidisciplinary courses to assure enhancement in a variety of skills."

Employees also need arenas in which to practice these skills. With the help of their management, all employees should look for opportunities to use new skills and improve existing ones, Hendricks said. These opportunities may include rotational assignments, special projects or working on teams.

"It doesn't matter how well prepared an employee is if that preparation is not put in to practice," she said.

Recognition of women's history began with a Congressional Resolution that called upon the nation to celebrate National Women's History Week in 1981. That observance has now grown to a National Women's History Month, celebrated in March, and was first recognized in 1987 by a Congressional Resolution. The month celebrates American women of every race, class and ethnic background and their historic contributions to the growth and strength of the nation.

Space News Roundup

The **Roundup** is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas, and is published every Friday by the Public Affairs Office for all space center employees.

The Roundup office is located in Bldg. 2, Rm. 181. The mail code is AP2. The main Roundup telephone number is x38648 and the fax number is x45165.

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